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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/854,897	05/14/2001	David Suden	510.043US01	7584

7590 06/04/2003  
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Minneapolis, MN 55458-1009

EXAMINER

GHATT, DAVE A

ART UNIT	PAPER NUMBER
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2854

DATE MAILED: 06/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

P.S.

# Office Action Summary

Application No.

09/854,897

Applicant(s)

SUDEN ET AL.

Examiner

Dave A Ghatt

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-14, 18-23 and 26-32 is/are rejected.
- 7) ☒ Claim(s) 4-6, 15-17, 24 and 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2001 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) g. 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 8, 10, 11, 19, 21, and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Throughout these claims the applicant uses the language “weak” and “strong” which renders these claims indefinite, because these are comparative terms, and the applicant fails to provide basis for comparison. As a result, the scope of these claims is unclear.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 3, 7, 8, 9, 10, 12, 13, 14, 18, 19, 20, 21, 23, 26, 27, 28, 29, 30, 31, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitaoka (US 6,400,659) in view of Kita et al. (US 5,798,161). With respect to independent claims 1, 12, and 23, as outlined in the abstract, Kitaoka teaches a disk manufacturing apparatus and process. Kitaoka teaches in the abstract and also in column 5 lines 60-67, the use of a data recorder 23 to record content to the

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compact disc. Kitaoka also teaches a transporter 30 to transport the compact disc, and a printer 26 to print an image to the compact disc. Kitaoka therefore teaches all the claimed structure, except the printer of Kitaoka is not a transfer printer as recited. Kita et al. teaches a transfer printing apparatus and method for printing on disk. As outlined in the abstract of Kita et al., the apparatus prints an image on an internal intermediate transfer sheet and transfers the image from the transfer sheet to the compact disc. To one of ordinary skill in the art, it would have been obvious to use the transfer printer of Kita et al., in the apparatus of Kitaoka in order to form a clear, highly sharp image on the disk, as outlined in Kita et al. in column 3 lines 55-58.

With respect to claims 2, 3, 13, and 14, the transfer printing apparatus of Kita et al. uses a thermal transfer process to print as outlined in column 18 lines 14-52, wherein as illustrated in Figure 18, the re-transfer printer prints the image to the internal transfer sheet while the transporter moves the compact disc to the re-transfer printer. As outlined above, it would have been obvious to one of ordinary skill in the art to use the thermal transfer printer of Kita et al., in the apparatus of Kitaoka in order to form a clear, highly sharp image on the disk, as outlined in Kita et al. in column 3 lines 55-58.

With respect to claims 7 and 18, as outlined in column 16 lines 43-46, Kita et al. teaches a line thermal head for transferring inks from a multi-color ink sheet 131 to the intermediate transfer sheet 121. Figure 18 illustrates a re-transfer mechanism including a heating roller 115, which as outlined in column 18 lines 20-25 includes an actuator mechanism to actuate the heating roller towards and away from the intermediate transfer sheet. As outlined above, it would have been obvious to one of ordinary skill in the art to use the thermal transfer printer and

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accompanying structure of Kita et al., in the apparatus of Kitaoka in order to form a clear, highly sharp image on the disk, as outlined in Kita et al. in column 3 lines 55-58.

With respect to claims 8, 10, 19, and 20, Kita et al. teaches in column 18 lines 20-25 and in column 24 lines 44-65, an actuator mechanism, and a range of contact pressures between the roller 115 and the intermediate transfer sheet, which is all that is required to meet the limitations of this claim. The applicant should note that in order for the apparatus of Kita et al. to be operable, the apparatus must include a controller to control the heating roller actuator mechanism. To one of ordinary skill in the art, it would have been obvious to use this selective pressure system of Kita et al. in order to print without damaging the disk, as outlined in column 24 line 63 of Kita et al., and also in order to form a clear, highly sharp image on the disk, as outlined in Kita et al. in column 3 lines 55-58.

With respect to claims 9, 21, 23, 27, and 31 as outlined in column 18 lines 47-52, Kita et al. teaches a method and apparatus including a re-transfer mark detector 118a to detect an alignment mark M formed on the intermediate sheet. It would have been obvious to one of ordinary skill in the art to use the thermal transfer printer and accompanying structure of Kita et al., in the apparatus of Kitaoka in order to form a clear, highly sharp image on the disk, as outlined in Kita et al. in column 3 lines 55-58.

With respect to claims 26, 28, 29, 30, and 32, and the requirement for loading content data that is to be recorded to the compact disc, and the step of loading multiple image data to produce an image on the compact disc, these steps are inherent to the apparatus and process outlined in the primary reference, Kitaoka.

*Allowable Subject Matter*

5. Claims 4, 5, 6, 15, 16, 17, 24, and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 4 and 15 are indicated as allowable because the prior art of record does not teach or render obvious the total combination claimed including a controller that forms a positioning mark in an unused area of the intermediate sheet by transferring one particular ink of the multicolor ink film, and thereafter always forming primary transfer images of plural colors on the intermediate transfer sheet in a superimposed relation with the transferred positioning mark as a reference.

Claims 6 and 17 are indicated as allowable because the prior art of record does not teach or render obvious the total combination claimed including a tension roller position sensor to detect a position of the tension rollers and a control unit to control the actions of at least an intermediate transfer sheet transporting motor for transporting the intermediate transfer sheet.

Claim 24 is indicate allowable, because the prior art of record does not teach or render obvious the total method claimed, including the steps of transporting the intermediate transfer sheet backward after forming the positioning mark, and transporting the intermediate transfer sheet forward in alignment with the positioning mark.

6. Claims 11 and 22 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 11 and 22 are indicated as allowable because the prior art of record does not teach or render obvious the total combination claimed including, a controller that controls the timing of operation of the heating roller actuator mechanism in such a manner that the heating roller is set to the weak contact state at a moment prior to the detection of the alignment mark by the re-transfer mark detector and is set to the strong contact state at a timing determined by using as the time reference the moment at which the re-transfer mark is detected.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The applicant is invited to the patents to Miller et al. (US 6,222,800 teaching a disk recording and printing method and apparatus) and Kahle (US 5,518,325 teaching a disk recording and printing apparatus).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dave A Ghatt whose telephone number is (703) 308-2417. The examiner can normally be reached on Mondays through Friday 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew H Hirshfeld can be reached on (703) 305-6619. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

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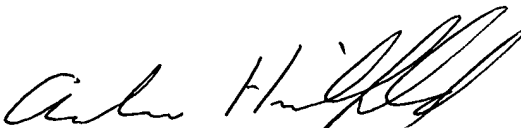
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3431.

DAG

May 30, 2003



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